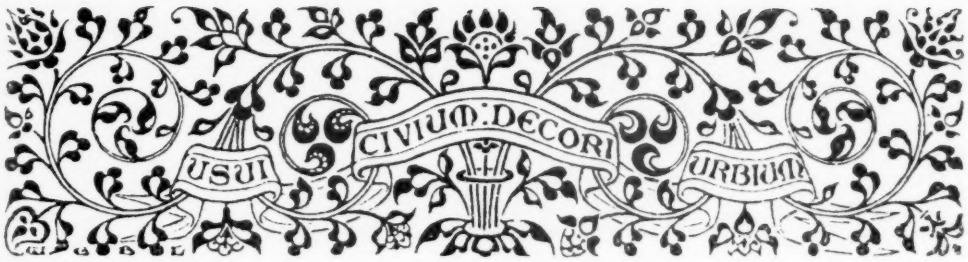

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CONTINUATION SCHOOL BUILDINGS IN GERMANY AND AUSTRIA.

By Martin Shaw Briggs [*A.*], Godwin Bursar,
Author of "In the Heel of Italy," "Baroque Architecture," etc.

[*The subject of this memoir was selected and approved in January* 1914, *the buildings described were visited in April and May, and the last pages were written only a few weeks before the commencement of the War. The situation has now changed so completely that it almost seems necessary to apologise for filling so many pages of the* Journal *with an account of some of the architectural work of our enemies. But at the same time it must be remembered that the system of Continuation Schools in Germany and Austria has contributed materially to the extraordinary state of technical efficiency now confronting us, and that it is highly probable that in the near future England may find it necessary—as Scotland has already done—to consider the adoption of some very similar system. Finally, it is perhaps permissible to state that the writer, although by no means a proficient German scholar, was treated with uniform kindness and courtesy (except in one solitary instance at Cologne) by the large number of officials with whom he came into contact during his tour.*]

I.

The Scope and Organisation of the Continuation School.

THE type of educational building to be described in the following Report has no exact counterpart in England, and has been evolved in Germany and Austria during the last decade. To understand its place among German schools, and, moreover, to appreciate its value to architects and local authorities in our own country, we must have some idea of the complicated ramifications of the German educational system.

In Germany (and in most of the following statements Austria is to be included) nearly every child is educated by the State. This does not imply of necessity that class-distinctions are unknown—far from it—but certainly State-managed institutions bear less of a stigma than in our own land.

Three main parallel groups of schools are provided, and these are differentiated not by the social position, but rather by the intended vocations of the scholars. Thus a potential architect would attend a certain school because he was to be an architect. The rift between the three groups is distinct, but it is a vocational rift and not a social rift. Except in certain districts, the groups are separate and parallel from the outset, but in Bavaria the children of all classes are educated together up to their tenth year. The cost of education in all groups is low.

The highest grade of school is known as the High School or Higher School and has three subdivisions (*Gymnasium, Realgymnasium,* and *Oberrealschule*), according to the amount of Latin taught. Scholars from these schools proceed either to the universities, if they are to enter one of the "learned" professions, or to technical or commercial colleges if their vocation is technical. In this last section are included architects and engineers.

The next grade is known as the Middle School (or *Burgerlicheschule* in Saxony and Baden), and corresponds to our "grammar schools," so far as there can be said to be any similarity at all. The classification resembles that of the High School—*e.g.*, *Progymnasium*, *Realprogymnasium*, and *Realschule*.

The third grade is the Elementary School (*Volksschule*), and corresponds closely to our Elementary School. A German child, however, enters at 6 years of age and leaves at 14, the facilities for leaving at 12 or 13 so common in England being non-existent in Germany.

We now come to the type of school with which this Report is concerned—the Continuation School (*Fortbildungsschule*). Generally speaking, the great majority of German boys and a large number of girls are compelled by law to attend a Continuation School for from 5 to 10 hours per week between their fourteenth and eighteenth birthdays. The average attendance is probably seven or eight hours per week for three years, the school year extending over about 40 weeks. The law inaugurating this scheme was passed in 1891, but it is important to notice that powers are given to local authorities to carry out the recommendations and that in each district the whole scheme is a matter of local option. The importance of this fact can hardly be exaggerated. In the first place, the Continuation School system is not a ready-made scheme foisted on unwilling towns by Act of Parliament. But it has been adopted voluntarily and gradually by one district after another till hardly a single town of importance remains without an organisation. This is the strongest recommendation any such system could have in the eyes of a business man. In the second place, each district arranges its own curriculum and requirements to suit local conditions, being subject to very slight control by the Imperial Government. This fact has, of course, a considerable influence on school buildings.

No boy or girl within the scope of any local educational by-laws is excused on the ground of social position or means. All must attend these schools unless they are being educated at some approved institution elsewhere. It must not be thought that Germans are by nature so subservient and docile that this drastic change of method was brought about without any opposition. On the contrary, opinion in certain quarters has been very hostile, and the great city of Hamburg has only just realised the inevitable. South Germany has been the pioneer of the movement, and Prussia has moved with much more deliberation. Nor must it be thought that the systems of different districts are moulded to the same pattern or controlled by one autocrat in Berlin. This is so far from being the case that the writer's task was rendered much more difficult by the lack of any general rules or statistics. In each town is a separate organisation, and sometimes there is little intercourse between separate schools of the same town. On the other hand, the mere fact of all this variation makes a study of methods and of buildings the more valuable to an interested foreigner. We are, as a nation, far behind Germany in this remarkable system, but we should be able to profit by her mistakes and her experiments all the more because of local differences. These local differences are educational, but they are of necessity architectural also, for each varying curriculum produces another type of school building. They may be summarised as follows.

German educational opinion is sharply divided into two camps in regard to the training given in Continuation Schools. One party holds that the main object of such training should be to fit a boy for his career in after-life and should not be too general in character. In other words, they believe that if a boy is to be a joiner, he should be taught as much joinering as possible, and very little of other subjects; or that his education should be "vocational." But this party is again divided into two sections, one maintaining that his training in joinery should be purely theoretical, and should consist of class teaching combined with drawing; the other urging that he should also undergo workshop training in the school. The natural result of this divergence in the "vocational" party is to produce two types of "vocational" Continuation Schools, one with workshops and one without. Then there is the opposition camp which believes in confining Continuation teaching to such general subjects as may strengthen the boy's character, regardless of his intended position in after-life, and this theory, of course, involves theoretical teaching only. But with the development of the system and the lapse of time there is a tendency for a

compromise to be reached, and now the most serious difference, so far as buildings are concerned, lies between the workshop-school and the school without workshops.

Another aspect of the question to be borne in mind is the strength of the apprenticeship system in Germany. Practically all workers in the "skilled" trades have to be apprenticed, and thus the success of the school lies very largely in the hands of the local employers of labour, who invariably take the principal part in its organisation and management. Conversely they, and not the parents of the scholars, are made responsible for attendance at school, paying all fees (which are nominal only) and all fines. But in Germany, as in England, though in a less degree, there is bound to be always a certain percentage of boys engaged in "blind-alley" occupations, as well as many others whose vocations are so menial in character that they cannot well be taught in a school. Of the first kind one might mention the errand-boy, the telegraph-boy and the lift-boy; of the second, the labourer, the dustman and the road-sweeper. These boys are in many districts, and in increasing numbers, also educated in Continuation Schools, and their teaching obviously cannot be "vocational."

The result of all these years of experience and experiment has been to evolve three main groups of Continuation Schools for boys, and for the purposes of this Report the following classification may be regarded as accurate :—

(i) The Industrial Continuation School (*Gewerbliche Fortbildungsschule*), where boys are educated for a definite vocation or trade, for six to eight hours per week during three years between their fourteenth and eighteenth birthdays. These figures, however, vary greatly, as I have said, and Industrial Continuation Schools may be further divided into schools where practical workshop training is given and those where the teaching is theoretical in character.

(ii) The Commercial Continuation School (*Kaufmännische Fortbildungsschule*), where boys engaged in shops, warehouses, and other mercantile establishments are educated in commercial subjects on the same lines as those in the Industrial section. Such a school has, of course, no workshops, but usually has laboratories for science teaching.

(iii) The General Continuation School (*Allgemeine Fortbildungsschule*) for those boys whose occupations are so casual or so menial that no vocational teaching can be applied to them. This third type of school is now instituted in most German cities of any size, but is not yet universal, as the first two may be said to be. For purposes of administration the General Continuation classes are frequently grouped with the Industrial branch, but there is no general rule.

To these three types of school for boys must be added a fourth where girls are taught. Nowhere in Germany, so far as the writer is aware, is compulsion applied to all girls as it is tending to be applied to all boys. Nor has even a limited measure of compulsion become universal.

But in most centres all girls employed in shops and offices, in any trade or vocation outside their homes, are compelled to attend a Continuation School specially devoted to domestic (*Weibliche*) subjects. It is thus frankly assumed that the German girl will eventually marry, and that training in cookery and housewifery must be provided. In very few cases are girls compelled to attend commercial or industrial classes, even though they may be employed in commerce or industry.

For the sake of clearness the four types are again tabulated :—

For boys (i) The Industrial or Trade Continuation School (*Gewerbliche Fortbildungsschule*)—
- (*a*) With practical workshop teaching.
- (*b*) Without practical workshop teaching.

For boys (ii) The Commercial Continuation School (*Kaufmännische Fortbildungsschule*).

For boys (iii) The General Continuation School (*Allgemeine Fortbildungsschule*).

For girls (iv) The Domestic Continuation School (*Weibliche Fortbildungsschule*).

So far, however, the one striking difference between England and Germany has been in the application of compulsion in the latter country. In England there are many good technical schools and secondary schools, where a clever boy with a scholarship may get excellent teaching free. But he

has to work in his evenings, after a long and tiring day at a bench or a counter. And this very fact restricts continuation schools in England to the talented, the industrious and the ambitious, leaving the great majority untouched.

The most striking feature in the German system is, that not only are boys *compelled* to attend these schools, but that they must attend *in the daytime;* in other words, in their employers' time. Yet such is the case, and the employers have (reluctantly in some instances) now nearly all come into line. They sacrifice eight hours or so per week of their apprentices' time, but they get better apprentices. Such, in brief, is the theory of the continuation school system in Germany and in Austria, the system which is arousing such intense interest and even anxiety among all thinking Englishmen to-day.

II.

The Need for specially designed Buildings.

The problem from the architect's standpoint is thus very clear. It is required to provide suitable accommodation in every centre of population for a large number of scholars, who attend classes some eight hours a week (on an average) in the daytime. In ordinary cases the number of these scholars may be estimated at from 2 to 2½ per cent. of the total population of the town or district. Thus in a city of 100,000 inhabitants one might expect to find 2,000 to 2,500 scholars on the books of the various Continuation Schools. The nature of the problem is obviously unusual. The usual formula as to thirty scholars in a classroom and so much space per head is quite useless. These scholars are never collected in the school at any one time, and they are studying a great variety of subjects.

Before proceeding further let us see what sort of a time-table prevails in a typical school of each kind. Certain subjects are common to all three types of boys' schools—viz., dictation and business letter writing, German literature, religious instruction, practical arithmetic, and a subject called *burgerkunde*, which may be translated as "the duties of a citizen." The "General" schools confine themselves to a curriculum of this type for the full six hours per week, or whatever the stipulated time may be. In the "Industrial" schools these subjects occupy a smaller portion of the time-table: one hour is usually devoted to a study of the scholar's particular trade (its history and organisation, materials and tools required, &c.), and three hours or so to drawing applied to his own needs. If practical teaching is given, it is usually only given in the *third* year, and thus forms only a small part of the whole curriculum. In the "Commercial" schools the place of trade-teaching is taken by ordinary commercial subjects, such as bookkeeping, typewriting and chemistry. In the "Domestic" schools for girls, as stated above, the only subjects taught are cooking, sewing and housewifery generally.

Assuming that a town of, say, 100,000 inhabitants has just decided to adopt a system of continuation schools, as permitted by the Act of 1891, how are the 2,000 or 2,500 scholars thus enrolled to be accommodated? This is the question which the writer has attempted to answer in this report, thanks to the facilities provided for him, as Godwin Bursar of the R.I.B.A., by our own Board of Education, by our Foreign Office and by various authorities in Germany and Austria. It would have been impossible to undertake a general survey of German schools of all types, and it is pleasant to think that it would also have been unnecessary, for in many respects our school architects lead the world. It would not have been altogether desirable to concentrate on German technical schools for various reasons, but the type of building chosen is valuable to us because it is unique. The German Continuation School building need not be regarded as perfect, or even, in many cases, as anything more than an exceedingly interesting experiment. But in view of the recent trend in educational opinion it may become very valuable to us as a model. Hence the writer devoted very little time to questions of construction and detail—except in so far as these differed from English practice—and concentrated his energies on planning and equipment. During a tour of five weeks eighteen towns were visited, and in every town one or more schools were studied in great detail, besides others casually inspected. Many of the plans accompanying this report have been prepared from rough notes rapidly

made on the spot, but in other cases printed plans were available in the *Jahresbericht* or annual report of each school.

To return to the hypothetical German town about to provide buildings for a large number of scholars, the first thought that would occur to an economical soul would be that possibly existing buildings might be utilised. To this possibility the writer devoted a considerable amount of attention during his tour. Perhaps there is a disused Elementary School available, or an empty block of buildings formerly used by the municipality for other purposes. Why not utilise some structure of this sort and thereby save the great expense of erecting a new school?

Taking an occupied Elementary School first, it requires little imagination to realise the difference in size between the *average* elementary scholar (of ten) and the *average* continuation scholar (of sixteen). In other words, though it would be possible for the lowest class of continuation scholars to sit comfortably at the same desks and on the same seats as the highest class of elementary scholars, it would be quite impossible for the higher classes of the former to use the desks and seats of the middle classes of the latter with any convenience. It is therefore admitted in Germany that one or two classrooms in each elementary school may be utilised for "General" continuation classes where no special apparatus or equipment is required. Continuation scholars and teachers using elementary schools on these terms are known as "guests," and perhaps that word explains why—sooner or later—the "guest" system is always regarded as a failure. Even from the scholars' point of view there are drawbacks, for though the younger scholars may comfortably be placed on seats for small boys of thirteen, a lanky youth of seventeen may find matters very different. Similarly the conveniences are unsuitable for older scholars. The teachers very naturally dislike being "guests" on sufferance, without any studies or private rooms of their own, and do not readily mix with the staff of the elementary schools. They have often no place to keep their books or stationery. Lastly, there are all sorts of administrative difficulties in this system of scattered classes which can easily be realised.

Next we may assume that a disused Elementary School is available, and in such a case of course the rooms may be stripped of all furniture as a preliminary measure. But a classroom accurately planned for, say, thirty juniors cannot be adapted to the needs of, say, twenty-five seniors without some little waste of space, and even then conditions are not all favourable. Very few old Elementary Schools are disused unless there is some good reason for it, and if such a building is too antiquated for its original purpose there is no reason why it should be suited for a Continuation School. The latter must, above all things, have rooms where drawing may be taught. Very few elementary classrooms can be made perfectly satisfactory for such purposes. Even if the natural lighting is adequate, artificial light is seldom suitable, and the installation of electric light is inevitable. German practice also insists on a basin or sink being provided in every classroom used for drawing.

The writer studied two of these transformed Elementary Schools in detail—the Trade Continuation School at Gelsenkirchen in Westphalia and the Trade Continuation School at Düsseldorf.

The former building (Fig. 1) is only six years old, and was designed as a "mixed" elementary school—*i.e.*, for boys and girls. The continuation scholars are all boys. The staircase is divided into two portions by an ornamental railing (which has not been removed), and is therefore unnecessarily wide. The conveniences are, of course, ridiculously plentiful, being designed for both sexes and for a much larger number of scholars than those now using the school. The classrooms are not of the size required and classes are cramped for space. An assembly-hall has been contrived in the attic storey. There is a needlessly ample playground, and a small lodge for the caretaker by the entrance gates. Though suited for its purpose as a branch Elementary School, the building is situated at some distance from the centre of the town. In view of all these facts, it is not surprising to learn that plans for a large new school are being prepared, to accommodate 3,000 scholars and to cost £22,500. In the present building there is no practical teaching, except for painters and decorators, who work in chronic discomfort by artificial light in a dark and ill-ventilated cellar!

The Central Trade Continuation School at Düsseldorf (see Fig. 2), though an older building, has been so skilfully adapted to its new purpose that when a large new school, now projected at a cost of £75,000, is built the older school will be retained for certain trades. The way in which the alterations have been arranged is best understood by a reference to the plan, where the original building is shown hatched, the new work being in black. The school is situated near the centre of the city between the Charlottenstrasse and the Karlstrasse, but has no frontage to either street. It occupies the wide open space between the houses on these two streets and is reached by short approach roads from both, with large playground. It is worth noting that these schools in congested districts, approached thus from main thoroughfares, are often found in Germany.

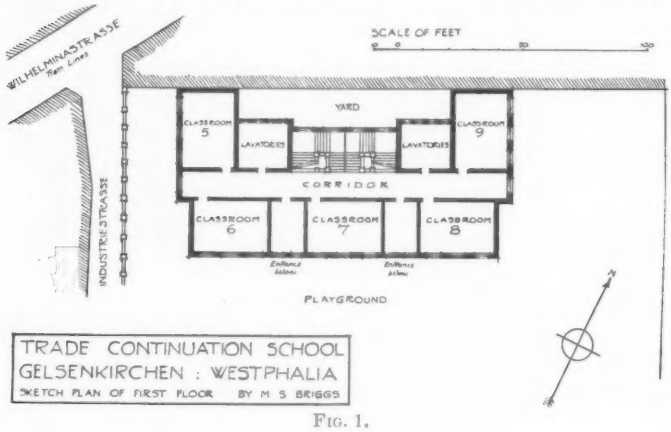


FIG. 1.

In this case the architect had to provide workshops for practical trade teaching besides modernising the other rooms, and his method has been very successful. At each end of the Elementary School block he added a wing containing workshops, &c. The new rooms are much larger than the old classrooms, but are of the same height, and are so arranged, where possible, that they communicate directly with the old classrooms used for theoretical teaching in the same subjects. Thus on most of the upper floors the workroom over "Workroom A" connects with the classroom over "Classroom A," and similarly over "Workroom B" and "Classroom B." The same principle holds good at the east end, over the Cycle Room and over "Caretaker B," &c. The addition of these workrooms and of the excellent block of lavatories on the north has of course considerably diminished the area of

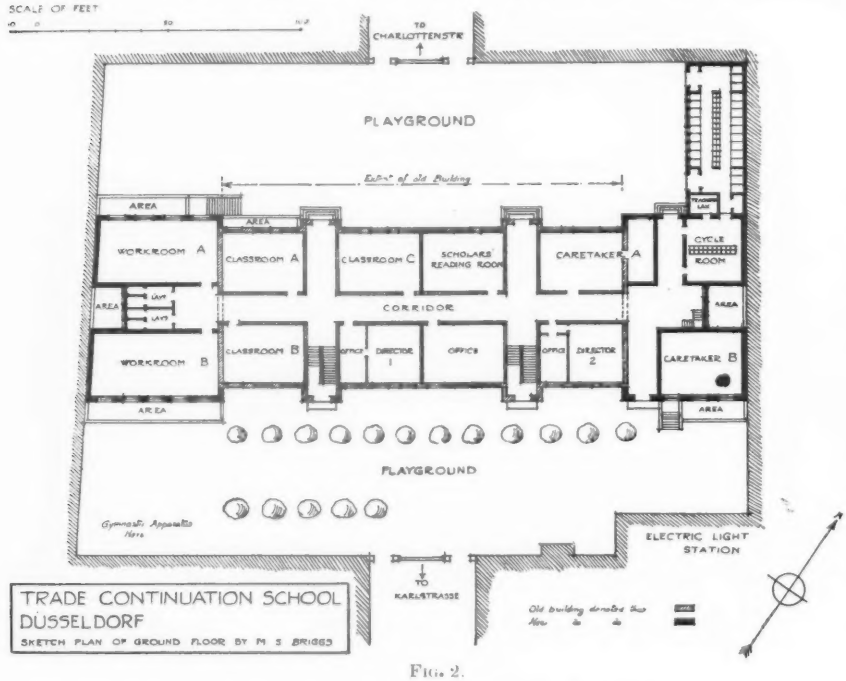


FIG. 2.

the playground, but a large open space is less essential for older scholars than for an elementary school.

This school is not solely used for compulsory Continuation scholars. There are trade classes for adults in the evening in the same rooms, and there are also a few classes for manual work for scholars from the elementary schools in their eighth year. In very modern elementary schools, as in England, manual workshops are always provided, so that there is no need for these young boys to be brought thus into the Continuation schools before their time.

The trades taught in this school are grouped by the Düsseldorf authorities as "heavy trades," and include mechanics, engineers, electricians, "fine" mechanics (*e.g.* watchmakers, opticians, cycle and motor engineers, &c.), joiners, furniture-makers, bookbinders, printers, photographers, tailors and modellers.

Besides rooms actually used for teaching, there are two directors' rooms (the director is the head-master), accommodation for two caretakers and their families, a cycle room, a reading-room for the scholars, and offices for clerks. The number of compulsory Continuation scholars now on the books is about 2,000, all of whom are boys.

At Hildesheim a very similar extension was built two years ago. The new wing contains trade workshops and extends back into the playground or open space behind the main block, which has its longest side towards a street (Rathhausstrasse). In this building are housed both trade and commercial Continuation scholars, about 1,600 in all, but the commercial classes will probably be removed in two or three years to a new school in connection with a projected Museum of Commerce for the town.

At Elberfeld I visited the Central Trade Continuation School at the corner of Karlstrasse and Mathildenstrasse, near the centre of the town. This large and extraordinarily prosperous city is badly situated from an architect's point of view, being crowded on the slopes of a narrow river valley, like some of those West Riding towns with which it has so much in common. The school in question stands at the corner of two narrow streets near the centre of the town, on a site which could hardly be worse for its purpose. It was originally an Elementary School, and appears to be about sixty years old. It consists of three floors and a basement, and is cramped, ill-equipped and badly lit. Besides the usual rooms for the director and his clerks, altogether inadequate, there are nine rooms available for teaching purposes. The remainder of the trade classes are scattered about the city in fifteen different rooms. It need hardly be said that trade teaching—much less practical trade teaching—cannot be carried on satisfactorily in such quarters, and one is not surprised to learn that it has been decided to commence the erection next year of a large new central Trade Continuation School at a cost of about £50,000, including equipment. This will, of course, absorb all the trade scholars from the present central school and from the various centres above mentioned.

At Chemnitz in Saxony, and at Aussig in Austria, where fine Trade Continuation Schools have been erected recently, I found that large numbers of the Trade scholars requiring instruction of a less elaborate type were taught in discarded Elementary Schools, and indeed this is commonly the case all over Germany and in Austria.

But from the short description of the schools visited it will be seen that in all cases except Düsseldorf—where conditions were comparatively favourable and where the plan was very cleverly adapted—it has become necessary to face the cost of a new building, specially designed for the purpose. At the outset of my journey it was suggested to me that I should not confine my studies exclusively to new and expensive schools, but that I should also visit some places where the authorities had resorted to "make-shifts." As a result of my researches I am convinced that German opinion is rapidly inclining towards a policy of special buildings for Trade Continuation Schools, and that this policy has been necessitated by many years of experiment and experience in schools such as I have described. It may be said now that an old Elementary School is quite unsuitable for practical Trade Continuation Classes, and usually unfit for theoretical trade teaching.

For the education of the unskilled workers the ordinary classroom is permissible in certain circumstances, but the seats are invariably uncomfortable, and the conveniences—as well as the rooms for teachers and clerks—are inadequate. For these reasons, and also from the point of view of organisation, the unskilled workers will probably be included in the same building as trade scholars or commercial scholars sooner or later.

As regards the Commercial Continuation Classes, the use of old school buildings is more reasonable, though still undesirable. By a curious coincidence only one of the six adapted Commercial Continuation Schools that I visited appeared to have been built as a school, the rest being designed for offices or warehouses.

In Cologne the Commercial Continuation School in Grosse Telegraphen Strasse was formerly used as Poor Law offices, and does not appear to be less than 50 years old. It consisted originally of a block of buildings two storeys in height, facing the street, with end wings three storeys in height. Over the central portion a third storey and a mansard have been added, all of light fireproof material, for the purposes of the school. The scholars now number about 3,000, and are of both sexes, the great majority boys. The sexes are rigorously separated, though this custom is by no means universal in Germany, and the girls use the top floor (which is splendidly lit) for cooking and other domestic subjects. In most towns boys and girls are taught in entirely separate schools where Continuation Classes are concerned, the domestic subjects for girls being taught in rooms attached to Elementary Schools and used also by the older elementary scholars. Returning to the Cologne example, we find that most of the building except the top storey is used for classrooms. These do not average more than 10 feet high, but appear to be adequately lit, and are decorated in light colours. As in most Commercial Schools, we find here a room for druggists or chemists, who do not appear to be grouped with the industrial trades in Germany. This room is a combined laboratory and lecture theatre, situated at an angle of the building, and thus having windows on two sides. The cost of its equipment, amounting to about £200, was entirely defrayed by the druggists of the city. The weak point of this building is not the rooms used for teaching, but the somewhat mean corridors and staircases and the absence of proper provision for the scholars' cloaks, which are all hung on hooks round the classroom walls. The playground is divided into two portions by a double range of conveniences for the two sexes, placed back to back. Nine w.c.'s and urinals are provided for boys, nine w.c.'s for girls, and one w.c. for male and female teachers respectively. Electric light has been installed throughout, and the whole building has been tastefully though simply decorated.

But in spite of the fact that this school is now probably quite fitted for its purpose, it must be borne in mind that its remodelling has been a very expensive matter, which only the high price of land in the centre of the city would justify in preference to an entirely new building. The same obstacle is now perplexing the Cologne municipality in another direction, for the cost of a centre site for the huge Trade Continuation School now projected is expected to exceed £50,000, and though the civic authorities own about a quarter of the ground in the middle of the city, they hesitate to devote so valuable an area to any school.

A Commercial Continuation School must be centrally placed, even more than others, for its pupils are chiefly shop assistants, office boys, etc.; and in Munich an old Elementary School is still used on account of its position. Although Munich has led the way with elaborate new Trade School buildings, this old-fashioned Commercial School has been remodelled and retained.

In Stuttgart and in Magdeburg the Commercial Continuation classes occupy antiquated and shabby buildings in the centre of the town; in Strassburg and Gelsenkirchen they are even less adequately housed.

A great deal has been written of late about the German Continuation School, and photographs of boys learning their various trades in Munich classrooms are now familiar to educationists in this country. A study of these pictures—of elaborately fitted workshops and wonderful laboratories—

and of most of the literature available before leaving England had led me to expect a series of palatial buildings, such as those in Vienna, Frankfort, and Munich. But the reality was very different. Excepting remote Königsberg on the Russian frontier, I visited every town where new buildings of any interest had been erected to my knowledge, and was surprised to find that they were the exception rather than the rule. A well-informed German authority wrote in 1912 that only ten per cent. of the total number of compulsory Continuation scholars in the country were in new or suitable buildings. But this percentage is being altered very rapidly, as will have been realised from the figures I have given. Nearly every town is now considering a building scheme for one or more schools, led by Berlin, where the vast sum of £200,000 is to be expended—so report says—on one Central Trade Continuation School for the city, and by conservative Hamburg—a laggard convert—with a scheme only second in magnitude to that of the capital.

III.

The Planning of Continuation School Buildings.

Admitting, then, that a specially designed building is desirable for every type of Continuation School and essential for the Trade type, what form should it take, and how should it differ from an Elementary School on the one hand and an ordinary Technical School on the other?

It cannot be claimed that Germany has yet evolved any type which can be regarded as either permanent or national. One must rather regard her buildings as a series of interesting experiments, produced by the varying local conditions of her many tributary States with their almost autonomous educational systems.

At the very outset one meets a difficult problem in the question of the site. Should the school be one large central establishment, or are the classes more effectively organised in a number of district schools in each city? In Germany there is a certain amount of unanimity on this question, and the central school seems the ideal for a small town up to, say, 100,000 inhabitants. For towns of 200,000 or over there is a growing tendency to have several district schools; and in Vienna, where all the skilled trades are gathered in one enormous building, some distance from the centre of the city, traffic is apt to become disorganised when the scholars are released! For this reason it is questionable whether towns so large as Berlin, Hamburg, and Cologne are well advised in carrying concentration to the point they appear to be attempting, and whether they would not do better to profit by the example of Munich and Frankfort, where the district school is considered to be the best solution.

But hardly anywhere do we find all the four types of Continuation School mentioned in Chapter I. combined in one single building.

. . . . . .

The only instance known to me is that at Bonn, which happened to be the first school I visited on my tour. Here the whole of the Continuation scholars in the city, at present about 2,200 in number, are taught. The 250 girls are included in the Commercial section, though they are studying cookery and domestic economy; and the boys are divided into Trade and Commercial sections, the unskilled workers being included in the former group.

The population of Bonn is about 90,000, and for a larger town a single school could become unwieldy. Moreover (and this is most important) Bonn is one of the places where workshop-teaching is not in favour, and therefore a smaller and simpler plan is possible. A school with workshops as elaborate as at Aussig, or even at Chemnitz, costs far more than one where theoretical teaching only is given, and also occupies far more space. On the other hand, this school at Bonn is very generously equipped in other respects.

Comparing the plans (Figs. 3 and 4) with English notions of a secondary school, we find many points in common. But we must remember that this is a compulsory school for all classes, that

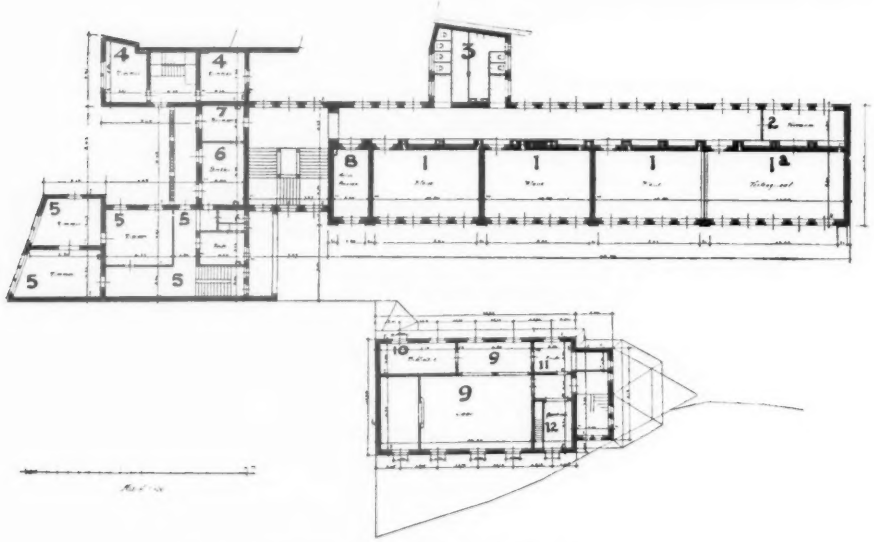


Fig. 3. Continuation School, Bonn: Second Floor Plan.

1. Classroom. 1a. Lecture Room. 2. Study. 3. Lavatories. 4. Caretaker's Rooms. 5. Headmaster's Rooms. 6. Headmaster's Study. 7. Waiting Room. 8. Clerks. 9. Recreation Room. 10. Library. 11. Kitchen. 12. Cloaks.

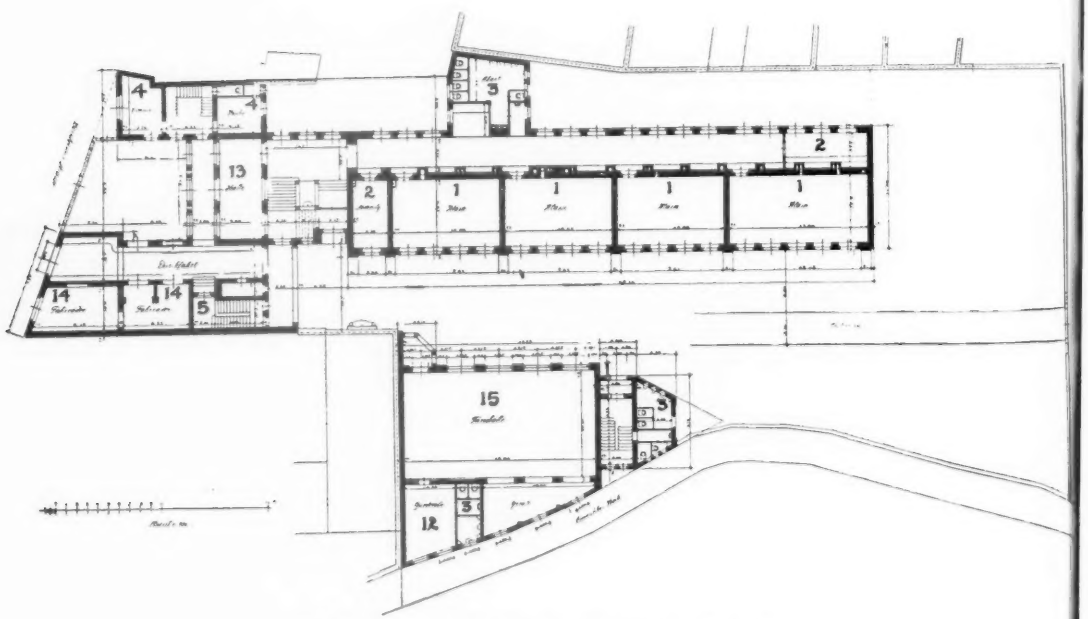


Fig. 4. Continuation School, Bonn: First Floor Plan.

1. Classroom. 2. Study. 3. Lavatories. 4. Caretaker's House. 5. Stairs to Headmaster's House. 12. Cloaks. 13 Entrance Hall. 14. Cycles. 15. Gymnasium.

there are no fees beyond a merely nominal charge, and that the scholars only attend some six to ten hours a week. And though this school is, so far as my experience goes, unique, yet it is modern, admirably equipped, and may be regarded as an excellent model to study. It is a Continuation School pure and simple; not a Trade Continuation School, nor a Commercial Continuation School, nor a General Continuation School, nor a Domestic Continuation School for girls; but all four combined in one building under one director.

The site is awkwardly shaped, and lies on a tram-route a few minutes from the centre of the city. As the classrooms are arranged with a view to aspect, the main axis of the building runs along the depth of the site, oblique and not normal to the frontage. The façade is recessed, and is also oblique, but—as will be seen from the plan—is ingeniously treated. On the right, as one enters the courtyard, are large bicycle-rooms; beyond them, in the corner, the hall and staircase giving access to the Director's house above. In the centre is a fine vestibule and staircase, forming the entrance to the school, and on the left is the caretaker's house on two floors. The height of the building is considerable, and includes four full storeys, the top storey in front being formed in the roof. In the front block, besides the Director's and caretaker's apartments, cycle-rooms, and vestibule already mentioned, there is a study for the Director with waiting-room attached, on the first floor; a teachers' common-room on the second floor; a small workshop for the printing trades and a cookery school for girls on the third floor.

The building in the rear contains only classrooms, with a wide corridor closed by iron gates containing recesses for the scholars' cloaks. It will be noted on the plan how these recesses are contrived between the numerous flues for hot air. From this corridor one enters the small block containing lavatories, etc. There are a few small rooms used as studies or museums in connection with the classrooms, and there is also a room or alcove fitted for the storage of drawing-boards, an important consideration in all such schools. Most of the classrooms are of the ordinary type, but there is a large room or theatre for science teaching, and on the second floor two classrooms can be united for lantern lectures, etc., being divided by a movable partition only.

In a detached building across the playground are a number of rooms used for recreation and for social functions. It is not yet the invariable rule to provide these facilities, and indeed they are only found in a few cases, but there will probably be a tendency to develop this side of school life in the future. Most Continuation Schools include a certain amount of physical drill in their curriculum, but only occasionally is a gymnasium provided. More often gymnastic apparatus is fixed in the playground, or the gymnasium of some neighbouring Elementary School is borrowed. Bonn is exceptional in having a fine gymnasium, 59 feet by 33 feet, with a cloakroom attached. The floor is covered with cork lino, which is also extensively used in the classrooms. Above is a large room for games, etc., measuring 47 feet by 23 ft., with a rostrum at one end. Adjoining is an alcove for use as a reading-room, whence doors open into a cloakroom and into a small kitchen where light refreshments are prepared for the scholars.

Most schools have a "Scholars' Association," which is run by the scholars themselves and which arranges all matters outside the actual scholastic routine.

Apart from accommodation, there is much to arrest the attention of an architect in this fine new school. The staircase and the corridors especially are decorated with a freshness of conception and an understanding of colour which are apt to be lacking in the stereotyped English school building.

The cost of the building was about £24,000, and of the site about £5,000. The designs were prepared by the City Architect. It is worth while mentioning at this point that there is no handbook on these buildings and that no rules have yet been tabulated. Hence a town desiring to build a Continuation School sends its *Schulrat* (Education Officer), its *Baurat* (Municipal Architect), and a deputation from the City Fathers on an expensive and, no doubt, enjoyable tour, visiting all places where a Continuation School has been built recently. We are so apt to credit the German nation with

being infested with officials and rules that it is pleasant to exonerate it in this case. In fact, the complete lack of any sort of standard or method made my own work much more difficult.

. . . . . .

Frankfort-on-Main, the next city at which I stopped after leaving Bonn, is another example where very little trade teaching, comparatively speaking, is done in the Continuation School. The population is over 440,000 and there are several Continuation Schools in different districts.

The girls are all taught, apart from the boys, in an old building in the middle of the town. The boys are not so rigidly separated into Trade, Commercial, and General sections as in many towns, and these three groups are taught together in each district centre. For this purpose there are three educational districts—northern, southern, and western. In the first two, modern buildings have been

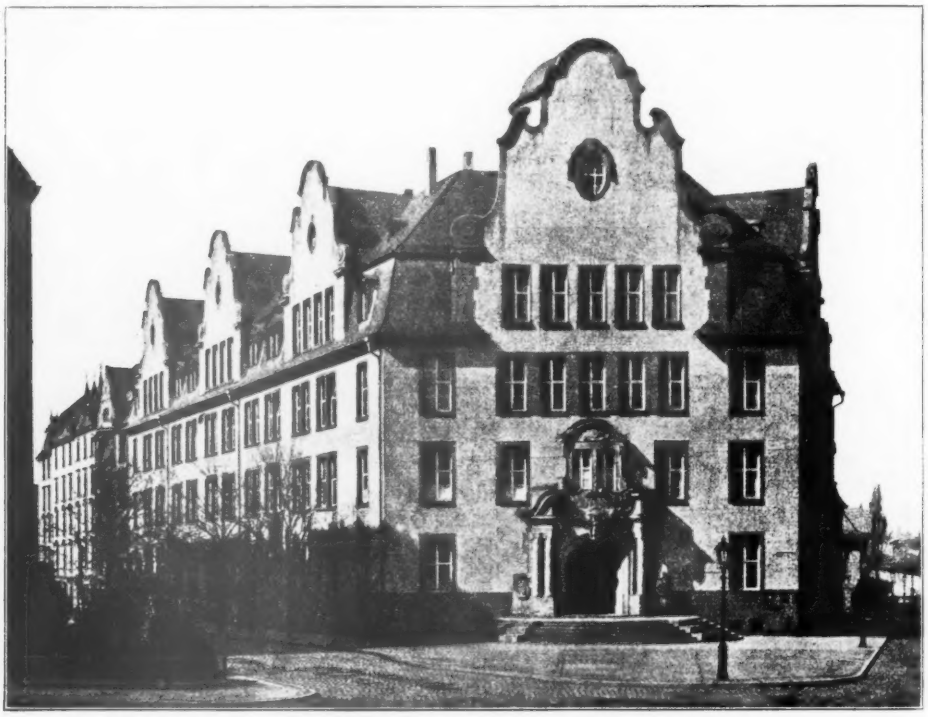


Fig. 5. Central Continuation School, Frankfort-on-Main.

erected, but in the third the classes are still scattered, the greater number being concentrated in the magnificent new Trade School in Moltke Allee. When the third district Continuation School is built, probably on a site adjoining the Trade School, the scattered classes will be taught under one roof.

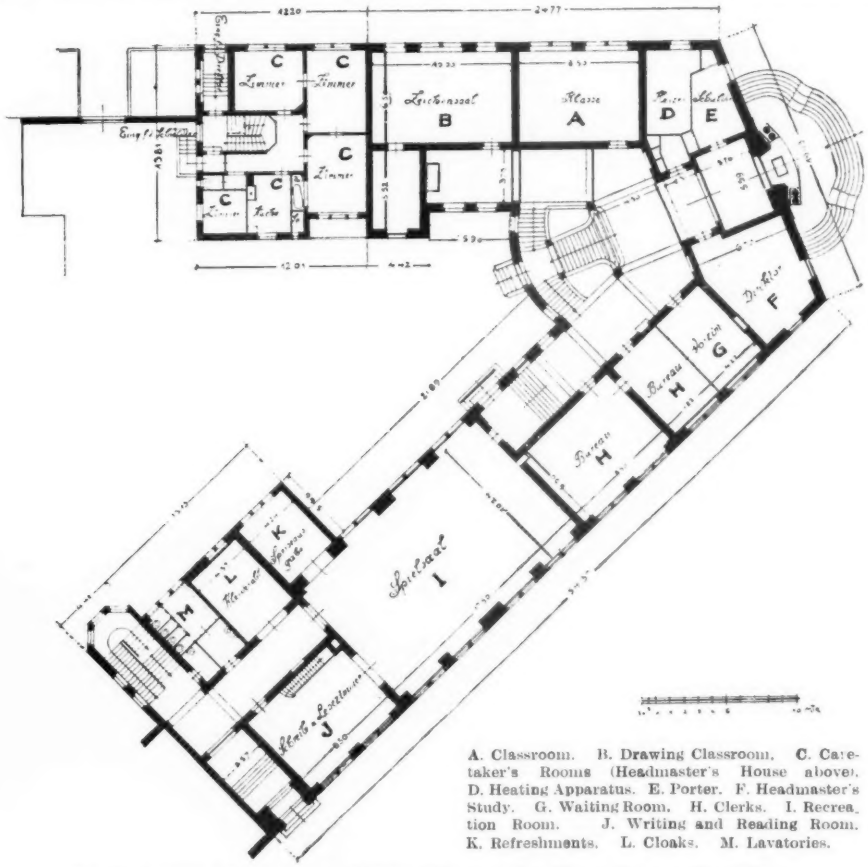
The Central School for the southern district is situated in the Frankensteinerplatz on a prominent corner site overlooking the river. It was built in 1906–8 from the designs of Herr Berg, at a cost of £32,250, including equipment, and there are about 3,500 scholars on the books at the present time. The plan (Fig. 6) shows a clever treatment of a corner site, and the general view (Fig. 5) gives some idea of the architectural features.

The main building consists of four full storeys (including the mansard), as well as a basement and an attic; excepting the house on the north for the Director and the caretaker, which is lower. It is a frequent practice in these schools to have a combined house of this sort, the caretaker using the

basement with a door into the playground or yard, the Director using the upper part. There are no workshops in the school, but with a view to possible future developments the basement has been arranged in order to allow of machinery being installed if desired.

The playground is used jointly by the Continuation School boys and by those of a neighbouring Mittelschule. As in the case of most of the schools described in this Report, the external walls are faced with rough-cast, the dressings are of red sandstone, and the roofs covered with dark red tiles.

The accommodation consists of 18 classrooms (each 28 feet by 21 feet 3 inches), 3 studies for drawing, 2 studies for modelling, 5 small rooms for studies and museums, a large science classroom, a



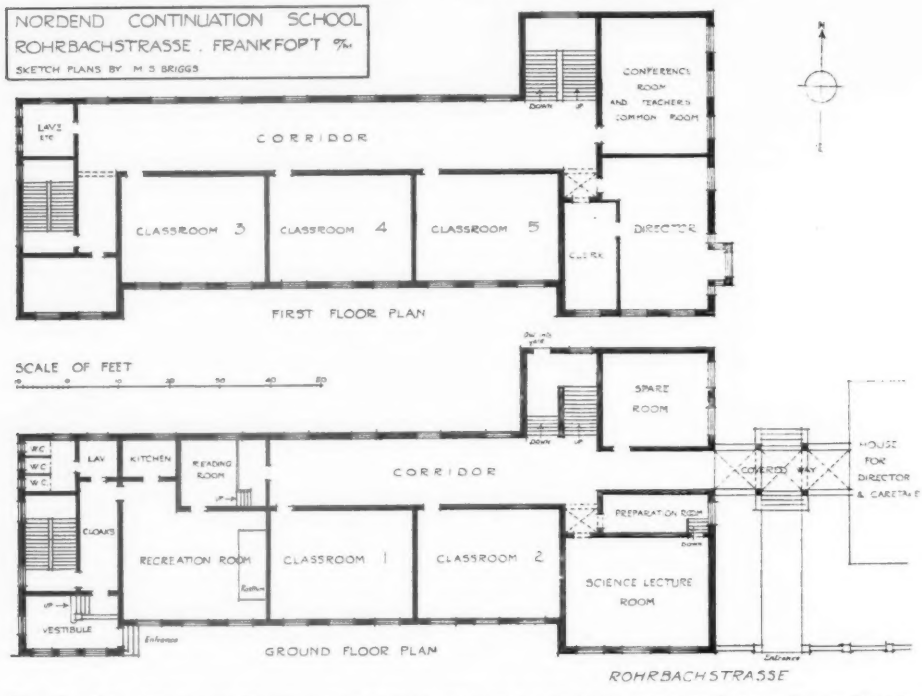
A. Classroom. B. Drawing Classroom. C. Caretaker's Rooms (Headmaster's House above). D. Heating Apparatus. E. Porter. F. Headmaster's Study. G. Waiting Room. H. Clerks. I. Recreation Room. J. Writing and Reading Room. K. Refreshments. L. Cloaks. M. Lavatories.

FIG. 6. CENTRAL CONTINUATION SCHOOL, FRANKFORT-ON-MAIN: GROUND FLOOR PLAN.

library and reading room, a teachers' common-room, 2 offices for clerks, one for the Director with writing room attached, and a suite of recreation rooms.

The latter (see Fig. 38) comprise a large room (57 feet by 34 feet) provided with tables for games which can be removed when there is a musical programme or dancing, as is usual on Sunday night. An open archway, closed at need by a curtain, leads to the reading and writing room (28 feet by 21 feet). Both of these rooms occupy two storeys in height. The walls are panelled in oak to a height of about 5 feet. A staircase in the reading room leads up to the scholars' library on the first floor. The recreation room may be used as an assembly hall, and has a separate entrance in the Frankensteinerstrasse, with cloakrooms, lavatories, and a small kitchen, as at Bonn.

Fig. 7. Northern Continuation School, Frankfort-on-Main.



Figs. 8 and 9. Northern Continuation School, Frankfort-on-Main: Ground & First Floor Plans.

FIG. 10. CONTINUATION SCHOOL, BRUCHSAL, BADEN.

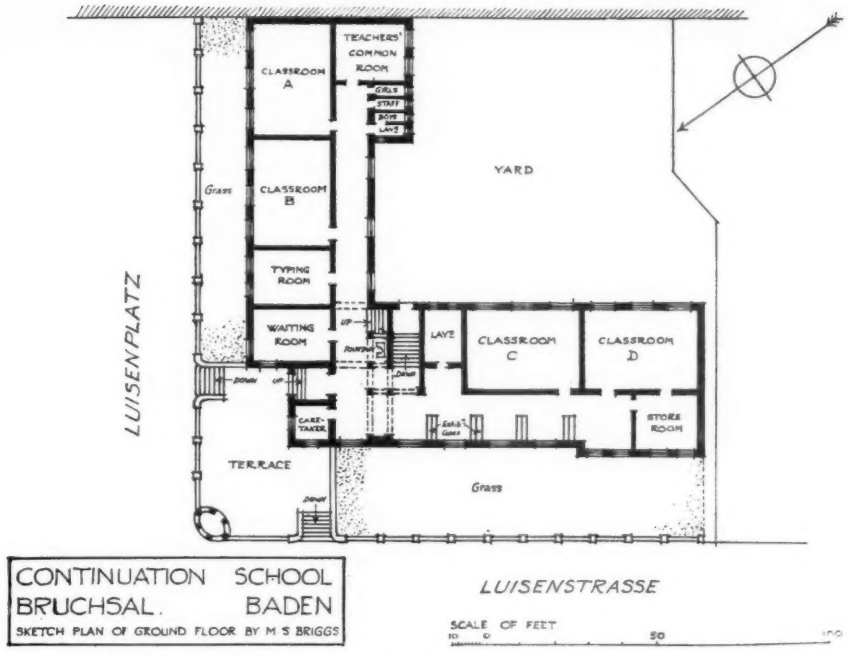


FIG. 11.

Fig. 39 shows the corridors in this school.

The central district school for the Northern district is situated in the Rohrbachstrasse and was built in 1908–10, at a cost of about £25,000, from the designs of Herr Kanold, formerly the City Architect. The school accommodates considerably fewer scholars than the last described and is also less interesting as a building (see Figs. 7, 8, and 9). A feature of the scheme is the detached house for the Director and the caretaker, connected with the main building by a covered way. Here, again, there are no rooms for trade teaching. The accommodation on the two lower floors may be seen from my own sketch plans. On the second floor the arrangement resembles that of the first floor, but on the top floor are two large studios facing north (whereas the classrooms below face south), which can be connected to form an "*aula*," or assembly hall, when desired. On this floor also are rooms for cookery classes, forming an exception to the Frankfort rule, by which girls are chiefly taught in a separate central building.

I also visited the Municipal Trade School in Frankfort, but it is too large and expensive a building to be of much use for purposes of comparison. It is true that a number of Continuation scholars in the western district attend classes there, but the building is intended for a more advanced type of student.

. . . . . .

Another Continuation School where all sections of scholars are taught under one roof is to be seen at the little town of Bruchsal in Baden, with a population of 15,500 (see Figs. 10, 11). This building was erected in 1911–12 from the designs of the Municipal Architect, at a cost of about £13,000. It is, however, impossible to establish any ratio between this figure and the cost of Continuation education in the town, as classes are also held for advanced students in the evenings, and in manual work for the eighth-year elementary scholars in the daytime. The idea of thus combining evening classes with a day Continuation School is feasible in a small town where the heavy expense of a dual system would be prohibitive.

The Bruchsal school only contains one workshop for Continuation students, besides three for the Elementary manual classes as above, and one for the personal use of the caretaker. All these are placed in the basement. The ground floor, as shown on the plan, is devoted to the Commercial section, and the two upper floors to the Trade section. The latter has 6 classrooms, 6 small studies or specimen rooms, a science classroom with preparation rooms adjoining, a committee room, and a room for clerks, also used as a writing room for visitors. There are no rooms for recreation and social purposes, no library or gymnasium, and no assembly hall, but there is one feature which has not been described in previous examples and which is (or soon will be) an important feature in every school where there is trade teaching. This is the row of exhibition cases in the wide corridor on the north-west, where are placed collections of specimens illustrating the various trades taught, and frequently connecting these trades with the manufacturing establishments of the town. Further information on this point will be found on a subsequent page. This school differs, then, from the new buildings at Frankfort and Bonn in the absence of recreation rooms and in the provision of exhibition space, and differs from most of the new Trade Continuation Schools to be described shortly in the absence of any complete system of workshops for practical teaching.

The plan is simple, and the exterior, as the elevation shows, very attractive. The building stands at the end of a new *place* near the station, surrounded by trees and by other new public buildings, and a little garden-house, or *gazebo*, is included in the scheme. Internally, the design and decoration are of a high order and everything combines to render this a model for a small Continuation School.

(*To be continued.*)

REVIEWS.

MEMORIALS.

Memorials and Monuments, Old and New. Two hundred subjects chosen from Seven Centuries. By Laurence Weaver, F.S.A. The "Country Life" Library. 1915. La. 8o. Price 12s. 6d. net. ["Country Life" Office, 20 Tavistock Street, Covent Garden.]

"A thing of beauty is a joy for ever,
Its loveliness increases . . . ."

In contemplating memorials one ought to be reminded at all times of the enduring thought that Keats put into such wonderful words, for unless a memorial is a thing of beauty, enshrining a fine thought, it defeats its own end and it were better had its message been left unsaid. All through the ages contrivers and makers of monuments have felt this; they have spared nothing to give of their best according to the ideals that were before their eyes. To what an extent outward form changed with changing ideals is common knowledge, but the desire to do honour and to perpetuate a memory was ever there. Till the mid-nineteenth century brought chaos into the arts, beautiful thought found expression in beautiful form; traditions were unbroken.

Those of us who in our travels have stood in admiration before countless memorials bequeathed by the past and have shuddered at the appalling banalities of the average modern production welcome a book like this for many reasons. It brings to mind masterpieces which we have seen at one time or another, but of which we had no record on our shelves; it helps us to follow the sequence in design, and to put into their proper place thousands of examples which every architect has stored in the back of his mind; and it brings hope for the future through the large number of memorials illustrated in its pages which have been set up during the last few years when skilled workers have been given an opportunity.

War sows crops of memories; even victory is bought at a price, and never before at such a terrible price as that exacted by modern destructive machinery. Many will be the sculptured stones and graven slabs set up in our churches, great and small, in our market-places and open spaces, when the longed-for time of peace comes again. It will rest with designers and craftsmen in all manner of materials to rise to the occasion and, as far as in them lies, to see that the tide of spurious imitation is stemmed once and for all. This book should help them to do it, and the more widely it is read and studied the more it should help them to do it, by educating the public mind and by focussing attention upon good models. Although Mr. Weaver gives his vast subject some historical consideration, his main theme is avowedly to assist the modern designer and to lead those who are contemplating the erection of memorials to look to the artist and craftsman instead of to the so-called "monumental mason" and the trade catalogue.

In spite of the fact that the book scarcely merits a title so comprehensive that it may be reasonably expected to include all kinds of memorials and monuments the world over, whereas it is limited in all

Monument to Cranmer, Jesus College, Cambridge.
Architects, Richardson & Gill. Sculptor, A. Bruce-Joy. 1912.

directions—space not even being found for a Greek stele near one end of the chain or a Sussex cast-iron tomb slab near the other—it nevertheless contains a remarkably representative selection of wall memorials and tablets of all sorts, of small monuments inside buildings and others standing in the open, together with suggestive criticism on the decorative methods

suitably employed, and especially on the right use of lettering. Monuments of sarcophagus form surmounted by effigies, to which class belong some of the most sumptuous works to be found in churches of every land, are stated to be outside the scope of the book, so it is well to accept it for what it contains and not to condemn it for what is omitted. If many volumes were filled with nothing but examples of really fine old memorials of one kind and another, there would still be others worth recording left out.

Vested with dignity but not too austere to crush the human appeal, memorials have been conceived in

Monument to Sir John Williams, Temple Church, London.
John Stone, 1656.

every vein but the playful: there seems to be no end to the possible combinations of architectural and sculptured form and of materials of widely differing texture and colour. That modern ones should not be Gothic in feeling, unless clearly necessitated by the surroundings, is a conclusion which the author draws and which few will be disposed to question to-day. It is also brought out that while there is something incongruous in setting a Gothic monument in a Classic building, there is not necessarily anything discordant in the insertion of a Classic monument in a Gothic building. The spirit of the eternal seems to permeate the Classic conception. The French have long excelled in the translation of Greek motives, and in their work and in that of the Neo-Grec school in this country probably lies the safest line of development for modern designers to follow where circumstances do not govern the choice of style. Chapter XII, on "Outdoor Memorials, Military and Civic," will be referred to with profit in these days, but Chapter XIII, which deals with churchyard memorials, is one of the most interesting.

It is not possible here to follow out the many lines of thought prompted by a perusal of this book: it is very readable, full of suggestion and sound advice, while it is at the same time a genuine contribution to the understanding of an art which has too long been sadly misunderstood and neglected in this country. It is well timed, excellently printed and illustrated, and the price is so moderate, considering its bulk, that architects and others may take hope that the day may not be far distant when it will be possible for them to surround themselves with books which are not only companionable but really useful at the same time.

ARTHUR STRATTON [*F.*], F.S.A.

PROTECTION OF ANCIENT BUILDINGS.

The Society for the Protection of Ancient Buildings. Thirty-eighth Annual Report of the Committee, June, 1915.

On opening this Report we find once again the *Principles* of the Society as set forth at its foundation in 1877. This is as it should be, for principles so thoroughly sound in themselves, and so happily expressed, cannot be read too often, and we hope the Society will long continue to reprint them. Indeed we should like to see each member provided yearly with a few copies in leaflet form for judicious distribution among such architects, clergymen and custodians of ancient monuments as stand in need of the wise instruction this essay so lucidly conveys. That the aims of the Society can be rather perversely misunderstood is shown by the Report of a Committee appointed to enquire into the regulation of changes made in ecclesiastical buildings by the Archbishops of Canterbury and York, in consequence of representations made by the deputation which waited upon them in 1913. This Committee seems to think that "the employment of a well-known architect" is an obvious guarantee that work will be carried out in a right spirit, whereas it is notorious that professional men of high reputation have been among the worst offenders. Their "very learning"—to borrow a phrase from the Society's *Principles*—"has been turned into a snare to them," and many of the most misleading historical frauds have been produced by skilled architects. The treatment of a venerable monument cannot safely be left to any one man, however clever he may be, until his suitability has been carefully considered by an accredited body of educated persons, in various walks of life, who appreciate the art of the past and see the vanity and essential dishonesty of trying to reproduce it in a later period. Such a body is this Society, and its recommendations deserve the most respectful con-

sideration. We are therefore sorry to detect in the Report of the Archbishops' Committee a somewhat supercilious tone, indicating a desire on the part of these gentlemen to depreciate ideas which they could not readily understand. This is unfortunate, as they evidently desire to be useful, and make some wholesome recommendations about insistence on faculties and due observation of them when granted. Had this Committee carefully studied the Society's *Principles*, instead of quibbling about the spelling of Mr. Bodley's name, the light might have dawned on them. Their enquiry reveals the astounding fact that, out of a list of forty churches submitted to the Archbishops by the Society as "cases where destructive work had been carried out under a faculty since 1896," *in twenty-one out of the forty cases named no faculty was obtained.* This certainly ought not to be possible, and the Committee rightly recommend that steps should be taken to prevent any such scandal in future. One example of quite inexcusable destruction relates to Walpole St. Andrew. The central mullion of the fifteenth-century or early sixteenth-century east window was entirely removed and the tracery altered in order that stained glass, having a central picture, might be inserted. This indefensible act of violation appears to form one of a number of cases "where faculties were obtained and well-known architects were employed." We see, then, how important it is that faculties should only be granted by properly advised authorities, and that an architect is not necessarily endowed with discreet modesty. In one archdeaconry we know of, a Committee consisting of the Archdeacon, one representative of the local Archæological Society, and a member of the local Architectural Society, has been appointed to report to the Chancellor of the Diocese on proposals for works at churches. It is quite plain that no work should in any case be done without a faculty, that all faculties should be literally obeyed, and that those who have the responsibility of granting them should receive the best available advice. We feel that the Society for the Protection of Ancient Buildings is thoroughly competent to provide the necessary guidance, and its frank recognition that the practical purposes for which churches exist are of primary importance, and that historical considerations must of necessity be ancillary to these, should secure the confidence of ecclesiastical authorities.

Last September the Society endeavoured—through the American Ambassador—to secure from the German Government an assurance that reasonable respect would be shown to works of art in the war area, but this right-minded plea was unheeded by those who seem to have lost the power to respect anything. How best to deal with old buildings that have been damaged, and to replace those that have been destroyed, will provide a difficult problem when Peace is restored. These matters were discussed at a meeting in February, which was attended by M. Victor Horta, Director of the Royal Academy of Fine Arts at Brussels, whose views are in accord with those of the Society. Belgium, as we all know, is rich in famous architecture, but few of its ancient buildings retain their full character, as the Belgians have always "restored" their works of art. At the present day M. Horta is almost alone in setting his face against this misguided practice, but as he is educating the architects of the future he is confident that his views will eventually prevail. We hope he will be supported in his efforts to bring his countrymen to a better way of thinking by all who can exercise a little influence of a proper kind. M. Horta also spoke of the difficulties that will arise when the thousands of exiles return to Belgium. Homes will have to be provided for these afflicted people, and M. Horta thinks the best solution will be to build houses of a more or less temporary character. This plan would satisfy immediate needs and give time for considering how best to set up more permanent habitations. M. Horta feels that it is not desirable that all traces of war should be obliterated, and we think he is right. Certain ruined buildings—such as the Cloth Hall at Ypres—may well stand in their tragic dignity as abiding monuments to the inexecrable malignity of a systematically ruthless invader who had no shadow of an excuse to be in Belgium at all. M. Horta accepted an invitation to become an Honorary Member, and expressed to the Society his appreciation of the honour done to him. This discussion and exchange of courtesies should make for good.

The Report points out that an increasing number of interesting old houses of minor importance have been destroyed during recent years, and that consequently many towns and villages have lost their distinctive character. This is especially true in the case of old cottages and farmhouses whose bedroom accommodation and sanitary arrangements are inadequate for present needs. The chief reason, we believe, is that many owners cannot afford to make the necessary adjustments in a manner worthy of the buildings themselves, and—much as we may regret the disappearance of the houses—it is not easy to suggest a remedy in the present state of public opinion.

On an early page of the Society's Report are two photographs: one of some quaint old houses at Selby in Yorkshire, the other of a new Post Office which has usurped their site. Comparison of these makes one despair, for the new erection is just about as interesting as a roll-top desk. It may be that the old houses were beyond repair, but there are plenty of architects who could have designed something useful and substantial, with feeling and refinement about it, though apparently the Government does not know of their existence. We turn with relief to the next item, which records the careful repair of an old cottage at Otford in Kent by its new owner, who is a member of the Society. Then comes the announcement that a representative of the Society is to sit on the Council of the Garden Cities and Town Planning Association. His presence will doubtless prevent a certain amount of destruction, but we have small hope from Garden Cities, which

are generally very flimsy attempts to be æsthetic "on the cheap."

In the *Notes on Cases*, which form the body of the Report, are two most interesting photographs of the interior and exterior of Pawlett Church, Somerset. This exceptional building retains features illustrating the styles of various periods up to the end of the eighteenth century. Certain repairs are to be done to the roof of this valuable fabric, but as those having rights in the church have been in consultation with the Society's Committee, we are sure that safe methods will be employed. A photograph of Radcot Bridge on the Thames shows how a mediæval structure has been judiciously repaired by an architect member. A new lease of useful life has thus been granted to this charming survival. A similar service has been done to a late mediæval house at Chiddingford, Surrey. In the course of this work many interesting features were brought to light, and we hope the purchaser and his family will long enjoy the home so happily preserved. These proofs that appreciation of old things is by no means extinct are very gratifying. A strange contrast to this wise conservatism distinguishes Charlton Kings, in Gloucestershire, which was so fortunate as to possess an old Churchyard Cross of combined dates in good order. This has been cut in two, the post-Reformation sundial having been placed on a new base and the mediæval shaft surmounted by a new finial. So, instead of one genuine historical relic, the parishioners now have two concoctions which are neither one thing nor the other. Two more photographs show how the porch of Tickhill Church, Yorkshire, has been thoroughly degraded by drastic restoration, when all that was needed was a little prophylactic attention. It is high time the diocese concerned revised its faculty regulations.

We exhort all who love our ancient landmarks and the "hallowed quiets of the past" to become subscribing members of the Society for the Protection of Ancient Buildings, and so strengthen its saving hand.

S. Perkins Pick [*F.*].

CONSERVATION OF INDIAN BUILDINGS.

Annual Progress Report of the Superintendent, Muhammadan and British Monuments, Northern Circle. Fcp. fo., Allahabad. [*Government Press, United Provinces.*]

This volume has the arid appearance inseparable from official literature, and consists for the most part of schedules, ruled columns, and figures. But it has within its womb human as well as archæological interest. One hears, with sorrow, of the recent death of "Maulvi Muhammad Shuaib, who had been munshi in this office since August 1905," for "He knew his work, and had made many friends"; and one learns with mixed feelings that "Her Highness the Begam of Bhopal has generously offered to provide the sum of Rs. 10,000 for repairs to the tomb of Zebu-n-nisa at Lahore, but the Local Government has been requested to inform Her Highness that there is considerable doubt as to whether this princess was ever buried at Lahore at all."

The Department (of which this volume is a report) has spent Rs. 2,19,865 . 0 . 4 during the year ending March 1914. This has been devoted mainly to what one is pleased to see described as the "conservation" (not restoration) of worthy structures; there has also been some judicious rebuilding, some planting and "laying-out," and much excavation and clearing away of rubbish. Photographs have been taken, measured drawings, of a practical type, made and listed, and a collection of antiquities is being formed at Delhi. Some description of these treasures is given, and I quote the inscription from a presentation sword, 1214, as a suggestion to grateful municipalities: "This chief sword had the honour of (bestowal) from his Majesty Shah Abbās, may God perpetuate his Country and Kingdom, on the slave: 'Ali Mardān Khān.' On the face of the blade: 'Pious ejaculations.'"

A phrase in the report, "6 seats of the Mughal *pattern* have been provided," is unpleasantly suggestive, and one does not like the expression "eradication of vegetation from buildings," but the seats need not necessarily have been chosen from a catalogue after the manner of town councils here, and the "vegetation" is probably a ruthless undergrowth, and not the kindly lichen of our northern lands.

There is little sign of conscientious "scraping" in the photographs, and questions of pointing are dealt with as of real interest. One reads that in the minar at Alan-d-din "the new rubble is set back from the old to distinguish old from new," also in the repairs of "Pietra dura" work no chipping of the groundwork is permitted, immense care is taken in preparing and fitting the missing inlay, and no less than nine separate ingredients are used in making the cement. Great insistence is laid on "the surroundings of buildings being made pleasant." "Chains" of buildings easily got at are thought out for the convenience of travellers, and means are taken that buildings off the beaten track are as much cared for as (to use the phrase of the report) "their more accessible brethren.

The photographs at the end of the report are naturally one of its most interesting features, and the interest is immensely increased by their being arranged in pairs—before and after conservation. Plates 3–7 are of the gardens of the Taj Mahal at Agra. Much "vegetation" in the shape of crowding and obscuring trees has been removed, and new trees planted to compose with the building, formality is properly maintained, and there is much paving in broad, straight paths (unfortunately of an unpleasingly jointless and cement-like appearance).

Plate 14 shows part of the Roman Catholic chapel at Lahore; external plaster has been removed (as from Staple Inn) exposing certain "jali" work in a corbelled oriel. This work, a stone, lace-like fret in place of glass, is of interest, but one questions the wisdom of attempting to "replace what is missing."

Plates 34–39 indicate very extensive work at Delhi, Purana, Tila (Indrapat). The great arched surrounding walls, before almost amorphous, have been cleared, unobtrusively restored, and made more interesting as well as permanent; but why should all the picturesque assembly of small buildings in the enclosure have been cleared away by the Civil Authorities, even if "the rank which Indrapat takes among the monuments of Delhi demanded that its interior should not be a matter of reproach"? Some of these erections had a distinctly architectural character (notably a little Italian-like loggia), and detracted no more from the dignity of their older brethren than the clustering Renaissance houses do from the cathedrals of backward Continental towns. Still, generally speaking, the work of the Department seems done with sympathy—much is revealed of fair arch and carved plinth once hidden in rubbish, permanence is given to things worth keeping, and there is no restoration after the "thorough" manner of Viollet-le-Duc.

The author of the report makes no offensive claim to official omniscience, and on page 27 he frankly states that "It is not known why the construction of a cookhouse, servants' quarters, and stable for the Superintendent, Taj and government gardens at Agra, at a cost of Rs. 2,545, has been charged to the archæological funds."

HERBERT G. IBBERSON [*F.*].

UNITARIAN CHURCHES.

Nonconformist Church Architecture. An Essay by Ronald P. Jones, M.A. Oxon., Architect. With 12 *Illustrations.* 8*o. Lond.* 1914. *Price* 1*s.* 6*d.* [*The Lindsey Press,* 5 *Essex Street, Strand, W.C.*]

The title of this little book, "Nonconformist Church Architecture," is perhaps somewhat more comprehensive than the contents of the work justify, as much of the text and all the illustrations are devoted to the consideration of those buildings erected by the Unitarian branch of Nonconformity. The author describes in an interesting and lucid manner some of the Unitarian churches built in the eighteenth and nineteenth centuries, and his remarks and suggestions upon the design of the present-day church are very practical, and might be studied with advantage by those who have to do with this class of work.

The book is clearly printed and the illustrations well chosen, those of the earlier chapels at Stannington and Ipswich being particularly good. Both these buildings, externally and internally, fully express the purpose of their erection, which the nineteenth-century work illustrated does not so clearly show.

Probably to a printer's error is due the statement on page 28 "That an eruption of Doric and Ionic *portions* took place indiscriminately on churches, assembly rooms, etc." The mistake is, however, a fairly apt description—the Doric and Ionic porticoes are too often only isolated "portions" of the buildings of that time.

W. G. HORSEMAN, *Licentiate.*

9 CONDUIT STREET, LONDON, W., 28*th August* 1915.

CHRONICLE.

R.I.B.A. Record of Honour: Fifteenth List.

Killed in Action.

ENGLISH, ERIC, 2nd Lieut., 13th West Yorkshire Regiment, attached 1/8th Manchester Regiment. Killed in action at the Dardanelles on the 7th August. Aged twenty-seven.

Lieut. English was the son of Mr. C. W. English, Licentiate R.I.B.A. He was a Student at the Ecole des Beaux-Arts and pupil of Monsieur J. L. Pascal.

Wounded and Mentioned in Dispatches.

HILLYER, WILLIAM HAROLD [*Student*], Lieut., R.E., attached 171st Mining Company. Wounded at Festubert, 12th May. Mentioned for gallant and distinguished service in the field in Sir John French's dispatch of 31st May.

Wounded.

GRIFFITH, GRONWY R. [*Licentiate*], Lieut., Royal Welsh Fusiliers. Wounded on 25th January, and still on sick leave.

HONAN, MATTHEW [*A.*], Captain, 10th Bn. South Lancashire Regiment. Wounded at the Dardanelles.

On Service.

The following is the Fifteenth List of Members, Licentiates and Students enlisted in the Army or Navy for the period of the War, the total to date being 44 Fellows, 325 Associates, 161 Licentiates, 209 Students, 2 Hon. Associates:

ASSOCIATES.

Birds, S. B.: Lieut., 72nd Canadian Seaforth Highlanders.
Brewerton, F. A.: 2nd Lieut., 3/1st East Lancs. R.E.
Gaunt, O.: Lieut., 41st Bde. A.C., R.F.A.
Loades, L. A.: Royal Engineers.
Phipp, R. A. Hyatt: 10th Bn. King's Own R.L.
Sharp, G. L. T.: 47th Bn. Canadian Force.
Smith, H. N.: Lieut., R.E.
Stone, H. Walcott: 2nd Lieut., Wessex Div., R.E.
Wigzell, Norman: 3rd C.M.R.'s (Canadian Force).
Wratten, E. L.: 2/1 (C. of L.) Field Ambulance R.A.M.C.

LICENTIATES.

Hall, J. Lockwood: Lieut., South African Engineering Corps.
Jane, W.: Captain, R.E.
Lister, T. G.: 1st Bn. Monmouthshire Regt.
Lovegrove, Gilbert H.: H.A.C.
Orphoot, Burnett N. H.: 2nd Lieut., Royal Engineers.
Waite, R. A.: Royal Engineers.
Webster, David: Lieut., 53rd Bn. Canadian Forces.

STUDENTS.

Brown, T. L. : 2nd Lieut., 15th Bn. Northumberland Fusiliers.
Hillyer, W. H. : Lieut., R.E.
Johnston, W. C. : 4th Bn., Border Regt.
Lister, H. A. : R.A.M.C.

Commissions in the Royal Engineers.

An opportunity has arisen for architects (under 40 years of age) to obtain commissions in the Fortress Royal Engineers. Enquiries should be addressed to C. Stanley Peach, Esq., Sub-Commandant, 4th Bn. (Architects') Central London Regt. Volunteers, 18 Tufton Street, Westminster, S.W.

Architects' War Memorial.

In response to the President's request at the Annual Meeting (p. 337) a large number of names have been sent in and have been entered on the Record of Architects on War Service. The numbers now amount to over 1,600, and include architects in practice, their assistants and pupils, and teachers and students of the architectural schools. Definite proposals are before the Council for the perpetuation of these names by inscribing them in a permanent form on panels to be fixed on the walls of the staircase leading to the Library at No. 9 Conduit Street.

The War Office and Architects' Services.

Mr. C. Stanley Peach [*F.*], Hon. Secretary of the Architects' War Committee, writes :—

My attention has been called to a reply given by Mr. Tennant, Under-Secretary of State for War, to a question concerning the use which the War Office has made of architects' services.

Mr. Tennant is reported to have said that "the offer of service by the Royal Institute of British Architects to assist in any work carried out by the War Department was not received until May 1915, when the greater part of the work of erecting wooden huts for the troops had been finished, hence comparatively little advantage could be gained by the War Department availing itself of the offer."

As this statement is incorrect, and I find has already given rise to considerable misunderstanding, I beg to make the following statement of the facts :—

A complete offer of the services of all members of the Royal Institute of British Architects and of other members of the architectural profession, was made to His Majesty's Government on September 11th, 1914, in a letter from the Architects' War Committee addressed to the Right Hon. J. A. Pease, P.C., M.P., the Minister authorised to deal with such offers. It was acknowledged by Mr. Pease on September 14, 1914, and the War Committee was informed that the letter was being forwarded to other Government Departments and that if an opportunity of utilising the help offered arose, a further communication would be sent.

On September 23rd a letter was received from the War Office, F.W.4, dated September 23rd, 1914, in which it is stated that the writer is commanded by the Army Council to acknowledge the receipt of the letter of the 11th containing the offer of service of members of the Royal Institute of British Architects and other gentlemen of the architectural profession, and stating that the Army Council much appreciates the patriotism which has prompted the offer which has been noted for future consideration.

From these letters it is manifest that the offer was in the hands of the Department which Mr. Tennant represents in September 1914, at a time when the work of the huts had hardly been commenced, and not in May 1915, when the greater part of the work had been completed as stated by Mr. Tennant.

Building and Economy.

The following letter from the President appeared in *The Times* of the 19th inst. :

SIR,—Will you allow me to draw attention to the recommendations of the Parliamentary War Savings Committee that "No one should build a house for himself at this time," and that "Decorations and enlargements should be cut down as much as possible."

At the first glance this advice will seem admirable, especially to those in no way connected with building work; but I venture to think that, if carried too far, it may have disastrous and perhaps unforeseen effects. Economy is impressed on all classes of the community in order that they may by their savings help to pay for the war. A strong point in our financial position is that even during war time our industries are kept going so far as possible, and thus everyone is able, more or less, to pay his way.

To stop all but absolutely necessary building would no doubt keep money in the pockets of those able perhaps to afford a modest and prudent expenditure in house building, decorating, and furnishing, but it would entirely deprive of all means of livelihood a very large number of people beyond military age and with no aptitude for munition making or other definite war work, even if it could be found for them. These men must inevitably become a burden on the community, and consequently what is saved in one direction is lost in another. Almost everyone connected, directly or indirectly, with building work already finds his income greatly reduced, indeed in some cases the vanishing point is almost in sight, and if work of this nature ceases entirely complete ruin is inevitable. It may be that this suggested further restriction of expenditure is absolutely necessary, and if so, there is no doubt that the position will be faced with fortitude and resignation.

All I ask is that before the *suggestion*, which will really have the force of a *command*, is made officially, we may have an assurance that the Committee have had the benefit of the experience of those conversant with the matter in all its complicated ramifications, and that the whole matter has been most carefully considered.—Yours faithfully,

ERNEST NEWTON, *President R.I.B.A.*

Civic Survey of Greater London : A War Relief Measure.

It will be remembered that at the outbreak of the War the Royal Institute of British Architects called a meeting of architects representative of the whole profession to discuss the situation, and that this meeting decided to form the Architects' War Committee, with the President of the Institute, Mr. Ernest Newton, A.R.A., as Chairman. The question of unemployment caused by the War was referred to an Employment Committee, which appointed a sub-committee to suggest some scheme of employment the outcome of which should be of permanent value to the community. Their deliberations resulted in a comprehensive and far-reaching scheme for the promotion of Civic Surveys in all the more densely populated districts of the country. A clear exposition of the aims and methods of a Civic Development Survey as contemplated by the sub-committee will be found in a Paper by the Director-General, Mr. H. V. Lanchester, read at the Institute last December and published in this JOURNAL on 9th January, p. 107. The

scheme having been approved by the War Committee and other interested bodies, a memorial was addressed to the Professional Classes Sub-Committee of the Government Committee for the Prevention and Relief of Distress, appealing for a grant to enable a scheme of Civic Surveys to be set on foot, the responsibility for the work to be in the hands of a committee made up of representatives of the Royal Institute of British Architects, Architects' War Committee, Architects' Benevolent Society, Surveyors' Institution, Professional Classes War Relief Council, National Housing and Town Planning Council, Garden Cities & Town Planning Association, Town Planning Institute, London Society, and other bodies whose services may be of value.

The appeal had a favourable response ; the Government has sanctioned Civic Surveys in three districts—viz., Greater London, South Lancashire, and South Yorks, and has made a preliminary grant of £1,000 for the work. The disbursement of the funds is in the hands of the Architects' Benevolent Society, acting with other Professional Relief Societies.

The Royal Institute had already made itself responsible for the expenses of the War Committee, and is now providing accommodation for the work of the Civic Survey of Greater London. On the 19th July actual work was started in the old Council room adjoining the Institute Reading Room, and arrangements have since been made for the accommodation of workers in one of the spacious galleries on the ground floor of the Institute premises. On the 3rd August the work was transferred to this gallery, and at the first meeting of the new workers a short description of the aims and scope of the Survey was given by the Hon. Director for Greater London, Mr. A. R. Jemmett.

The scheme of the Civic Survey of Greater London is devised for the purpose of collecting and recording (as far as possible in diagrammatic or graphic form) and comprehensively arranging statistics and facts of Greater London as it exists to-day, and so providing in a manner easily followed and understood all the information interesting and useful to any person concerned with the control, development, or understanding of all matters pertaining to Greater London. It is a fact that a vast amount of valuable information accumulated by experts lies buried away in blue-books and archives quite out of reach of the ordinary citizen. The results of labour quietly and conscientiously devoted to research and codification ought not to be left to crumble and decay in obscurity, particularly as human energy is awakening to the importance of future development of town and country, upon which subject these records have such an important bearing.

The magnitude and importance of the work of the Civic Survey is so obvious that it has by its very usefulness attracted many architects of established reputation. Public bodies and the public generally may some day be grateful for the war which has remotely led to the gathering together for this work of men specially trained, whom in times of peace it would have been impossible to commandeer for such labour.

The work to be done in collecting and arranging includes correcting and bringing up to date all that has so far been done ; and it is hoped to add an additional charm to the work, when completed, by giving it an æsthetic quality worthy of the profession of architecture. Since the work started much information has been collected by visiting heads of departments and local councils, and by enlisting the sympathy of officials, which has always been freely bestowed, it being quickly recognised that the Civic Survey scheme does not trench on the preserves of any existing society, or disturb any vested interests, but seeks only to deal with things as they are, not as they were or will be. The fact that many of the workers are personally acquainted with officials and experts enables much information to be collected without friction and with scarcely any loss of time and energy on formality and routine. The immense variety of the work makes it easy for the directors to discriminate between the workers and to see that each man is given the kind of work to which he is best inclined and fitted.

The ready help and courtesy afforded by the officials of the various bodies associated in the work has stimulated happy co-operation and good feeling among all those engaged in it. All who take the pains to understand the scheme must recognise thet, apart from its value as a basis for town planning, it is a labour of far-reaching utility.

Reinforced Concrete Construction: L.C.C. Regulations.

The Building Acts Committee of the London County Council gave in a Report dated 28th June the following account of the proceedings leading up to the application to the Local Government Board for allowance of the Regulations prepared by the Council respecting the use of reinforced concrete in buildings :

On 21st November, 1911, the Council, under the authority conferred on it by section 23 of the London County Council (General Powers) Act, 1909, made Regulations with respect to the construction of buildings wholly or partly of reinforced concrete. The Regulations were prepared after consultation with the Institution of Civil Engineers, the Royal Institute of British Architects, the Surveyors' Institution, the Concrete Institute, and other associations and committees interested in the matter. The Regulations having been made by the Council were submitted to the Local Government Board for allowance. After prolonged negotiations with the Board a revised draft of the Regulations was prepared, and the Council on 24th June, 1913, made Regulations in accordance with this draft. The amended Regulations were submitted to the Board for allowance, and in accordance with the provisions of the Act the four institutions before mentioned were informed of the Council's intention to apply for the allowance of the Board. Further negotiations have taken place with the Board and the institutions, and numerous suggestions for modifications in the Regulations have been received. We think that a large number of these suggestions might be adopted, and we have accordingly prepared and now submit a revised set of Regulations. The Local Government Board has stated that in its opinion the Regulations as now amended might properly be allowed, and the Royal Institute of British Architects has placed on record its opinion of the great value

of the Regulations to architects not only in London but throughout the whole of the Empire.

The Regulations as now amended are less onerous than those made on 24th June, 1913, and more in line with the Regulations made on 21st November, 1911. If as the result of experience gained during the next few years it should be found that alterations are desirable there should be no difficulty in modifying the Regulations.

In addition to the notice required by section 23 (4) of the Act to be given to the above-mentioned institutions, the Local Government Board desires that, as in the case of by-laws to which section 184 of the Public Health Act, 1875, applies, notice should be advertised in one or more London newspapers, preferably daily papers, and in one of the technical papers circulating amongst persons professionally or commercially interested or affected. The Board also desires that a copy of the Regulations may be deposited for inspection at the offices of the Council for a clear calendar month after the publication of the advertisements and before the submission of the application to the Board for the allowance of the Regulations.

Payment for Preparation of Designs where Building Scheme has been abandoned.

At the instance of the R.I.B.A. Practice Standing Committee the attention of the Council of the Royal Institute of the Architects of Ireland was called to the unsatisfactory conditions attaching to the appointment of an architect under the Kingstown Urban District Council which had been advertised in the public press. The appointment was in connection with a housing scheme estimated to provide 274 habitations, and the architect's duties were to include preparation of all plans and specifications, supervision of the work of erection, attendance at all Local Government Board inquiries and meetings of the Council and Committees, and preparation of documents for the Local Government Board inquiry and for carrying out the scheme, " at a fee, to cover all the work, of $2\frac{1}{2}$ per cent. on the accepted contract." It was stipulated that " in the event of the scheme being altered or not sanctioned by the Local Government Board, or abandoned altogether or in part, then no fees whatever shall be payable to the architect save for that part of the scheme gone on with by the Council and completed."

A deputation from the Institute of Ireland waited upon the Housing Committee and urged such modification of the conditions as would secure to the architect a fee of 5 per cent. on the typical house of each group. This, they explained, would preserve the 5 per cent. principle, and would mean only a very trifling increase in fees. As regards the provision that no fees be paid on abandoned work, its manifest injustice was pointed out, and the deputation asked for an alteration of the clause so as to ensure payment of a reasonable fee in case of abandonment of a scheme for which designs had been prepared.

The deputation hoped that their representations had been favourably received, but have been disappointed to find in the Revised Conditions since issued that while 5 per cent. on each typical house has been agreed to, the commission on repetition work has been reduced to 2 per cent. Further, as regards abandoned work, the only concession granted is that the Urban Council " may consider a reasonable claim for money expended by the architect."

In view of the unsatisfactory nature of the Revised Conditions, the Council of the Institute of Ireland have passed a Resolution recommending members not to apply for the appointment, or, in the event of their having done so, to withdraw their application. The terms of the Resolution have been communicated to the Town Clerk, Kingstown, and to every member of the Institute of Ireland.

It is hoped that the stand taken by the profession in Ireland against these unfair conditions will have the steadfast support of their brethren in other parts of the kingdom, and that members of the R.I.B.A. and its Allied Societies will refrain from applying for the position until the conditions are rectified.

The Artists' War Relief Exhibition at the R.I.B.A.

Several more drawings and paintings have been added to the Artists' War Relief Exhibition since Mr. Walter Millard's notice in the last issue of the JOURNAL. The interest of the collection is greatly enhanced by the new exhibits, among them being works by Messrs. Philip H. Calderon, Gordon Hake, Penley, Van Bloemen, Leslie Wilkinson, W. Hilton Nash, R. Wilson, Matthew Dawson, Edgar Wood, W. J. Palmer Jones, the Hon. Alice Maud and Mrs. Walter Millard. For the information of any who have missed previous notices it may be repeated that the Exhibition is for the benefit of painters and architects whose ordinary work has come to a standstill owing to the War, and that the pictures come under two categories—(1) Works presented to be sold for the benefit of the Relief Funds, and (2) works sent to be sold for the benefit of their authors. Many of them are of very high merit, but all are moderate in price, some being offered at a figure that would seem to be much below their real value. Among the exhibits are examples of Sir Ernest George's etchings about which Ruskin wrote so enthusiastically in a long distant past. So far, sales have been gratifyingly numerous.

Night Duty at St. Paul's: Architect Volunteers Wanted.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—It may perhaps not be known that at the request of the Dean and Chapter of St. Paul's and of Mr. Mervyn Macartney, the Surveyor to the Fabric, certain architects have undertaken to watch the Cathedral, with the object of extinguishing fires that might be caused by aerial bombs. During the winter months it will be necessary to obtain more help, and we should be glad if any members of the R.I.B.A. who will volunteer for one whole or two half-nights a week, will communicate with Mr. J. E. Drower, 28 Victoria Street, Westminster, S.W. It is hoped that the watch of this national monument may be undertaken by members of the architectural profession. It will be necessary to secure another 120 volunteers.

(Signed) CECIL C. BREWER. PERCY E. NEWTON.
W. CURTIS GREEN. WALTER TAPPER.
J. E. DROWER. LAWRENCE A. TURNER.
F. C. EDEN.